ROHM AND HAAS

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PRODUCT DATA SHEET

AMBERLITE™ UP252

Semiconductor Grade Strong Acid Cation Exchange Resin for Industrial Use

AMBERLITE UP252 resin is a semiconductor grade strongly acidic cation exchanger. The matrix is based on macroporous crosslinked polystyrene and the functional groups are sulphonates. Due to the very high quality of the raw materials and the cleaning procedure carried out at the end of the manufacturing process, this resin can be used as a component of mixed beds for the production of ultra-pure water. In this application, AMBERLITE UP252 resin is combined with AMBERLITE UP900 resin.

PROPERTIES

Matrix	Styrene divinylbenzene copolymer
Functional group	Sulphonic acid
Ionic form as shipped	H^+
Total exchange capacity [1]	≥ 1.7 eq/L (H^+ form)
Moisture holding capacity [1]	52 to 58 % (H^+ form)
Shipping weight	800 g/L
Particle size	
Uniformity coefficient	≤ 1.6
Harmonic mean size	0.600 – 0.800 mm
< 0.300 mm [1]	0.1 % max

[1] *Contractual value*

Test methods are available on request.

SUGGESTED OPERATING CONDITIONS

Composition in volume	40 % AMBERLITE UP252 60 % AMBERLITE UP900
Service flow rate	10 to 30 BV*/h
Linear velocity	15 to 40 m/h
Bed depth	About 1.50 m for the whole mixed bed
Regeneration	
Regenerant	HCl : 4 - 6 %
First regeneration	200 g/L
Following regenerations	100 to 150 g/L
Flow rate	1 to 5 BV/h
Temperature	15 to 25°C
Slow rinse	2 BV at regeneration flow rate

** 1 BV (Bed Volume) = 1 m^3 solution per m^3 resin*

COMMISSIONING

At the time of commissioning it is recommended to follow the procedure described in our brochure : Startup procedure for regenerable ultra pure mixed beds.

LIMITS OF USE

AMBERLITE UP252 resin is suitable for industrial uses. For other specific applications such as pharmaceutical, food processing or potable water applications, it is recommended that all potential users seek advice from Rohm and Haas in order to determine the best resin choice and optimum operating conditions.

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Ion exchange resins and polymeric adsorbents, as produced, contain by-products resulting from the manufacturing process. The user must determine the extent to which organic by-products must be removed for any particular use and establish techniques to assure that the appropriate level of purity is achieved for that use. The user must ensure compliance with all prudent safety standards and regulatory requirements governing the application. Except where specifically otherwise stated, Rohm and Haas Company does not recommend its ion exchange resins or polymeric adsorbents, as supplied, as being suitable or appropriately pure for any particular use. Consult your Rohm and Haas technical representative for further information. Acidic and basic regenerant solutions are corrosive and should be handled in a manner that will prevent eye and skin contact. Nitric acid and other strong oxidising agents can cause explosive type reactions when mixed with Ion Exchange resins. Proper design of process equipment to prevent rapid buildup of pressure is necessary if use of an oxidising agent such as nitric acid is contemplated. Before using strong oxidising agents in contact with Ion Exchange Resins, consult sources knowledgeable in the handling of these materials.